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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,153	04/16/2004	Erik C. Scher	01-002001	8584
33140	7590	08/02/2006	EXAMINER	
NANOSYS INC. 2625 HANOVER ST. PALO ALTO, CA 94304			NEGIN, RUSSELL SCOTT	
			ART UNIT	PAPER NUMBER
			1631	

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/826,153	<b>Applicant(s)</b> SCHER ET AL.	
	<b>Examiner</b> Russell S. Negin	<b>Art Unit</b> 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-59 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-25, and 49-59, drawn to a method of monitoring an object, classified in class 702, subclass 19. If this group is chosen, then the below mentioned species elections are required.
- II. Claims 26-48, drawn to a composition, classified in class 530, subclass 300. If this group is chosen, then the below mentioned species elections are required.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the composition of Group II can be used for a materially different process than those claimed in Group I. For example, the claimed composition can be used as quantum dots in a mixture of genetically engineered viruses. [Lee et al., Science, volume 296, 2002, pages 892-896].

Species Elections for Group I:

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If Group I is chosen, then the below 15 species elections are required. Applicant is required to choose one specie from each of the fifteen categories.

**Category #1: object type (claim 2)**

Applicant is required to choose from one of the object types listed in claim 2.

Each object is a mutually exclusive composition of matter with different physical properties.

**Category #2: nanocrystal type (claims 3, 50)**

Applicant is required to choose from one of the nanocrystal types listed in claim 3, 50.

Each nanocrystal is a mutually exclusive composition of matter with different physical properties.

**Category #3: nanocrystal manufacturing methods (Claim 4)**

Applicant must choose from the nanocrystal manufacturing methods of claim 4.

Each process for manufacturing involves physically different steps and as a result different end products.

**Category #4: nanocrystal tuning (claim 6)**

Applicant must choose from the nanocrystal tuning methods of claim 6.

Each process for tuning involves physically different steps and as a result different types of tuning.

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**Category #5: tuning control factors (Claim 7)**

Applicant must choose a factor that tuning controls in claim 7.

Each process of controlling a factor is unique and each factor has a different physical property.

**Category #6: UV or IR (claim 8)**

Applicant must choose whether the emission wavelength of the nonvisible light comprises UV or IR wavelengths.

UV and IR wavelengths are physically distinct, independent types of wavelengths of light.

**Category #7: adherent matrix types (claim 12)**

Applicant must choose the type of adherent matrix to be employed.

Each adherent matrix is chemically unique with its own set of physical properties.

**Category #8: tagging methods (claim 13)**

Applicant must choose a tagging method mentioned in claim 13.

Each tagging method is a distinct, mutually exclusive process.

**Category #9: general illumination source (claim 16)**

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Applicant must elect an ultraviolet light source, a visible light source, or an infrared light source.

Each type of light source is independent with its own set of light wave ranges and physical properties.

Category #10: specific illumination source (claims 17, 53)

Applicant must elect a specific light source from the list given in claim 17 or 53.

Each light source is physically distinct with its own set of properties.

Category #11: method of detection (claims 18, 56)

Applicant must elect a method of detection for receiving nanocrystal emissions.

Each method is an independent and distinct process.

Category #12: Method of decoding (claim 20)

Applicant must elect a method of decoding listed in claim 20.

Each method of decoding is an independent and distinct process.

Category #13: method of exciting (claim 21)

Applicant must elect a method of exciting with light from the types of light listed in claim 21.

Each method of illumination is a distinct means of excitation.

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Category #14: barrier composition (claims 23, 55)

Applicant must elect a barrier type from the lists in claims 23 and 55.

Each barrier type is a mutually exclusive, physically distinct process.

Category #15: nanocrystal linkage (claim 25)

Applicant must elect a composition to which to link the nanocrystals.

Each composition is a unique, physically distinct material with different properties.

Species Elections for Group II:

If Group II is chosen, then the below 11 species elections are required. Applicant is required to choose one specie from each of the eleven categories.

Category #1: nanocrystal type (claim 27)

Applicant is required to choose from one of the nanocrystal types listed in claim 27.

Each nanocrystal is a mutually exclusive composition of matter with different physical properties.

Category #2: nanocrystal linking agent (claim 30)

Applicant must elect a nanocrystal linking agent from among those listed in claim 30.

Each nanocrystal linking agent is a physically distinct compound with its own properties.

Category #3: nanocrystal composition #1 (claim 32)

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Applicant must elect a compound that comprises a nanocrystal.

Each compound is physically distinct with its own set of chemical and physical properties.

Category #4: nanocrystal composition #2 (claim 33)

Applicant must elect a compound that comprises a nanocrystal.

Each compound is physically distinct with its own set of chemical and physical properties.

Category #5: nanocrystal manufacture methods (claim 36)

Applicant must elect a method of manufacture of nanocrystals.

Each method is distinct with its own set of method steps.

Category #6: UV or IR (claim 40)

Applicant must elect whether emission spectra comprise UV or IR wavelengths.

Each emission spectra comprises physically distinct wavelengths.

Category #7: method of predetermination of intensities (claim 42)

Applicant must elect a method of predetermination of intensities.

Each method is physically independent and distinct with its own set of method steps.

Category #8: method of administering to a mammal (claim 43)



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Applicant must elect a method of delivery of nanocrystals to mammals.

Each method is physically independent and distinct with its own set of method steps.

Category #9: method of predetermination of spectra (claim 45)

Applicant must elect a method of predetermination of spectra.

Each method is physically independent and distinct with its own set of method steps.

Category #10: adherent matrix composition (claim 46)

Applicant must elect an adherent matrix composition from amongst those listed in claim 46.

Each composition is unique with its own set of physical properties.

Category #11: barrier composition (claim 48)

Applicant must elect a barrier type from the lists in claim 48.

Each barrier type is a mutually exclusive, physically distinct process.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-25 and 49-59 are generic to group I and claims 26-48 are generic to Group II.

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Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species.

MPEP § 809.02(a).

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the central PTO Fax Center. The faxing of such pages must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CFR § 1.6(d)). The Central PTO Fax Center Number is (571) 273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Negin, Ph.D., whose telephone number is (571) 272-1083. The examiner can normally be reached on Monday-Friday from 7am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Andrew Wang, Supervisory Patent Examiner, can be reached at (571) 272-0811.

Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instrument Examiner, Tina Plunkett, whose telephone number is (571) 272-0549.

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Information regarding the status of the application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information on the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

-RSN

13 July 2006



13 July 2006

  
JOHN S. BRUSCA, PH.D.  
PRIMARY EXAMINER

14 July 2006